

# **Feed-in tariffs scheme: consultation on Comprehensive Review Phase 1 – tariffs for solar PV**

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# Executive summary:

1. It is now just over 18 months since the Feed-in Tariffs (FITs) scheme started. Deployment statistics show that, in that time, the FITs scheme has been successful in encouraging people up and down the country to become involved in local, clean green energy generation. Solar photovoltaics (PV) has led the way in terms of volume deployed, and recent months have seen a substantial increase in both the number of solar PV installations actually registered for FITs and the pipeline of solar PV installations (i.e. those that have been installed but haven't yet been registered for FITs). While this trend is testament to the popularity of FITs, it also reflects the pace of change that has recently characterised the solar PV market.
2. This consultation document outlines our proposals for responding to these developments by reducing the tariffs for solar PV to a level consistent with providing a reasonable rate of return. It is the first of two consultations on the comprehensive review of FITs that was announced at the start of the year (separate from the fast-track review of large scale solar PV, which is now complete). We will be publishing the second consultation around the end of 2011 which will consider other aspects of the scheme including the tariffs for other FIT technologies and proposals for introducing new cost control mechanisms for FITs to ensure the ongoing affordability of the scheme.
3. Global costs of installing solar PV have fallen dramatically since the FITs scheme began. Through the comprehensive review, we have seen new evidence highlighting the speed and scale of this trend<sup>1</sup>, which has seen the cost of installing a PV system fall by at least 30% since the start of the scheme (and we are aware of reports that the global costs of PV modules have fallen by as much as 70% since 2008). These real world developments have been far ahead of any of the projections undertaken when the FITs scheme was developed in 2009/10. For example, the scheme as introduced included plans for tariffs to degress after the second year of the scheme, but this planned depression of around 9% per annum is significantly smaller than the 30% actual cost reductions seen.
4. Falling costs combined with a number of other factors, including rising electricity prices, have meant that the returns available to new PV generators are higher than originally envisaged. The tariffs for solar PV were originally intended to provide a return of around 5% for well located installations,<sup>2</sup> but our analysis suggests that the returns available now are substantially more than that. This is not sustainable and, were the trend to continue, it would have two impacts. Firstly, it would risk PV generators being overcompensated. This would not provide value for money to consumers, who ultimately pay for FITs through their energy bills. Secondly, it would very rapidly result in the spending envelope for the FITs scheme being breached, limiting the availability of FITs to other technologies and prospective generators.

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<sup>1</sup> Cambridge Economic Policy Associates (CEPA)/Parsons Brinkerhoff (PB), 'Updates to the Feed in Tariffs model: Documentation of changes for solar PV consultation', October 2011.

<sup>2</sup> The Impact Assessment supporting the introduction of the FITs scheme (published in February 2010) stated that, "PV tariff levels provide an approx 5% ROI given that PV is easier to deploy than other technologies and carries less risk to the investor since it is a tried and tested technology. In setting a 5% ROI for PV, the relatively high generation cost of PV (measured through a £/MWh cost-effectiveness metric) and the potential impact of this on overall scheme costs and hence energy bills has also been taken into account."

5. The Coalition Government is committed to ensuring that as many people as possible are encouraged to consider local low-carbon solutions and are able to benefit from the funding available for the FITs scheme in the current Spending Review period (up to end of March 2015). With that aim in mind and in the light of the developments set out above, we consider that it is imperative that we introduce a correction to the tariffs for solar PV. We also consider that the immediacy and extent of the risk of breaching the spending envelope makes it necessary for tariff changes to be implemented rapidly. The principal objective of this consultation document is to consult on proposals for such tariff reductions and the timing of these. The consultation also considers the best ways of ensuring that solar PV is considered as part of a whole-building approach that prioritises energy efficiency.
6. Specifically, this consultation sets out the Coalition Government's views on the aims and objectives of the FITs scheme (see **section 1** for more detail) and seeks views on proposals to:-
- (i) **reduce the generation tariffs for solar PV** installations to a more sustainable level. Because of the rapidly increasing deployment at small scale, the focus of the reductions is on solar PV installations with a total installed capacity of up to 50kW. However, to ensure consistency and in the light of the new cost evidence from the comprehensive review, we are also proposing further reductions to the tariffs for solar PV installations with a total installed capacity of between 50kW and 250kW (which were reduced from 1 August 2011 following the fast-track review earlier this year). The proposed new tariffs are set out in Table 1 (see **section 2** for more detail).

**Table 1: Current and proposed generation tariffs for solar PV**

<b>Band (kW)</b>	<b>Current generation tariff (p/kWh)</b>	<b>Proposed generation tariff (p/kWh)</b>
4kW or less (new build)	37.8	21.0
4kW or less(retrofit)	43.3	21.0
>4-10kW	37.8	16.8
>10-50kW	32.9	15.2
>50-100kW	19	12.9
>100-150kW	19	12.9
>150-250kW	15	12.9
>250kW-5MW	8.5	8.5*
stand alone	8.5	8.5*

\* Note that these are the current tariffs which we are not proposing changing and which, like all other current tariffs, will be adjusted in line with the Retail Price Index from 1 April 2012.

- (ii) apply the new generation tariffs from 1 April 2012 to all new solar PV installations with an eligibility date<sup>3</sup> on or after an earlier 'reference date' which we propose should be **12 December 2011**. Installations with an eligibility date before the reference date will not be affected and will continue to be eligible for the current generation tariffs. Installations with an eligibility date between the reference date and 1 April 2012 would be eligible for the current generation tariffs for electricity generated before 1 April 2012, but would move to the new generation tariffs for electricity generated on or after 1 April 2012 (see **section 2** for more detail).
  - (iii) introduce **new multi-installation tariff rates for aggregated solar PV** schemes i.e. where a single individual or organisation owns or receives FIT payments from more than one PV installation, located on different sites. The new tariff rates would apply to all new PV installations that are part of an aggregated PV scheme and have an eligibility date on or after 1 April 2012 (see **section 2** for more detail).
  - (iv) strengthen the link between FITs and energy efficiency by introducing a **new energy efficiency requirement** for FITs for solar PV (see **section 3** for more detail). The new requirement would apply to all new solar PV installations with an eligibility date on or after 1 April 2012 which are attached to or wired to provide electricity to a building.
7. We are also considering whether more could be done to enable genuine community projects to be able to fully benefit from FITs. We will provide more detail on this in the second consultation on the comprehensive review but would, in the meantime, welcome any views on this and whether, for example, a definition of community scheme is required and, if so, how this should be defined
  8. Subject to responses to this consultation and the Parliamentary process set out in the Energy Act 2008, we are proposing that the changes to tariffs be made by amending the FIT Payment rate table in Annex 2 to Condition 33 of the Standard Conditions of Electricity Supply Licences, and an energy efficiency requirement is implemented by amending the Feed-in Tariffs (Specified Maximum Capacity and Functions) Order 2010 and Condition 33.
  9. Responses to the proposals in this consultation are invited by 23 December 2011.
  10. FITs is a Great Britain scheme so any changes following this consultation will apply in England, Scotland and Wales.

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<sup>3</sup> "Eligibility date" means the date from which an installation's eligibility for FIT payments commences. It is defined in Condition 33 of the Standard Conditions of Electricity Supply Licences, and is the later of the date:

- (a) as applicable, of
  - (i) receipt by Ofgem of a FIT generator's written request for ROO-FIT accreditation in a form acceptable to Ofgem (for installations with a declared net capacity of over 50kW); or
  - (ii) receipt by a FIT licensee of a FIT generator's written request for MCS-certified registration (for installations with a declared net capacity of up to 50kW); or
- (b) on which the eligible installation is commissioned.

## How to respond

**The closing date for responses is:  
23 December 2011**

Online responses are preferred and can be submitted via DECC's consultation hub: at the following link: <https://econsultation.decc.gov.uk/office-for-renewable-energy-deployment-ored/comprehensive-review-part-1>

If you are unable to submit your response online please send it in an email to: [fits@decc.gsi.gov.uk](mailto:fits@decc.gsi.gov.uk). Please use the template provided to record your response, which can be found at the consultation webpage alongside the other consultation documents: [http://www.decc.gov.uk/en/content/cms/consultations/fits\\_comp\\_rev1/fits\\_comp\\_rev1.aspx](http://www.decc.gov.uk/en/content/cms/consultations/fits_comp_rev1/fits_comp_rev1.aspx)

Alternatively, hard copy replies should be sent to:

Feed-in Tariffs team, Office for Renewable Energy Deployment  
Department of Energy and Climate Change,  
4th Floor, Area A,  
3 – 8 Whitehall Place,  
London, SW1A 2AW.

### Additional copies

You may make copies of this document without seeking permission. Further printed copies of the consultation document can be obtained from:

Feed-in Tariffs team, Office for Renewable Energy Deployment  
Department of Energy and Climate Change,  
4th Floor, Area A,  
3 – 8 Whitehall Place,  
London, SW1A 2AW.  
Telephone: 0300 068 5733

An electronic version can be found at:

[http://www.decc.gov.uk/en/content/cms/consultations/fits\\_comp\\_rev1/fits\\_comp\\_rev1.aspx](http://www.decc.gov.uk/en/content/cms/consultations/fits_comp_rev1/fits_comp_rev1.aspx)

Other versions of the document are available on request.

### Confidentiality and Data Protection

When this consultation ends, members of the public may ask for a copy of responses under freedom of information legislation. If you do not want your response – including your name, contact details and any other personal information – to be publicly available, please say so clearly in writing when you send your response to the consultation. Please note, if your computer automatically includes a confidentiality disclaimer, that will not count as a confidentiality request.

Please explain why you need to keep details confidential. We will take your reasons into account if someone asks for this information under freedom of information legislation. But, because of the law, we cannot promise that we will always be able to keep those details confidential.

We will summarise all responses and place this summary on our website at [www.decc.gov.uk](http://www.decc.gov.uk). This summary will include a list of names of organisations that responded but not people's personal names, addresses or other contact details.

### Help with queries

Please direct any queries about this consultation to our dedicated e-mail address:

[fits@decc.gsi.gov.uk](mailto:fits@decc.gsi.gov.uk)

or in writing to:

Feed-in Tariffs team, Office for Renewable Energy Deployment  
Department of Energy and Climate Change,  
4th Floor, Area A,  
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London, SW1A 2AW  
Telephone: 0300 068 5733

If you have any comments or complaints about the consultation process, please address them to:

DECC Consultation Coordinator  
Area 6A  
3 Whitehall Place  
London, SW1A 2AW  
Email: [Consultation.coordinator@decc.gsi.gov.uk](mailto:Consultation.coordinator@decc.gsi.gov.uk)

A copy of the Government's Code of practice on Consultations can be found at:  
<http://www.berr.gov.uk/files/file47158.pdf>

# Chapter 1. Aims of the FITs scheme and of the first FITs comprehensive review

## Summary

- The comprehensive review provides an opportunity to revisit the **aims of the FITs scheme**. The FITs scheme is designed to promote take up of small-scale low-carbon electricity technologies by the public and communities. This is part of a portfolio approach to meeting the UK's renewable energy target that must be affordable in the context of the control framework for DECC levy-funded spending and provide value for money to consumers.
- The FITs scheme is also intended to contribute to other low carbon goals. These wider aims are central considerations in justifying any level of subsidy that is above the cost per unit of energy generated considered necessary to meet the renewable energy target cost-effectively. Specifically, the FITs scheme aims to:-
  - empower people and give them a direct stake in the transition to a low-carbon economy;
  - help develop a supply chain that offers households a wide range of cost effective measures to lower their energy use and carbon emissions; and
  - Assist in public take-up of carbon reduction measures, particularly measures to improve the energy efficiency of buildings.
- The **comprehensive review** is considering how the FITs scheme can be improved to ensure that these aims are met, and are met cost-effectively. This consultation is part of the comprehensive review and focuses on support for solar photovoltaics (PV).
- A further consultation on the comprehensive review will be published around the end of the year. This will consider the tariffs for other non-PV technologies and administrative aspects of the FITs scheme with the aim of any resulting changes being implemented in the first half of 2012.
- This second consultation will also include proposals for introducing new cost control mechanisms for FITs to ensure that the scheme's aims are met in a manner which is affordable within the control framework set for DECC levy-funded spending.



## Background

11. The Coalition Government has made clear its commitment to increasing the deployment of renewable energy across the UK in the sectors of electricity, heat and transport. Earlier this year, we published the UK Renewable Energy Roadmap, which set out our understanding of actual and potential deployment and the actions required to help the UK meet our target of 15% renewable energy by 2020 in a cost effective and sustainable way.<sup>4</sup>
12. The emphasis on cost-effectiveness is crucial, particularly given the overriding need to ensure affordable energy for consumers. It is also vital that we ensure a responsible and efficient approach to the public subsidy programmes that support renewables, including the FITs scheme for small-scale low carbon electricity generation. That is why last year's Spending Review committed to improving the efficiency of FITs by finding £40 million of savings, around 10% of the originally projected spend in the 2014/15 financial year.
13. Delivering this commitment is a key objective of the first comprehensive review of FITs which was announced on 7 February 2011. The review has been looking at all aspects of the FITs scheme but has focused in particular on understanding changes in technology costs; considering whether the original target rates of return remain appropriate; and ensuring that the FITs scheme is able to operate within the spending parameters confirmed by the Spending Review.
14. A recurring theme in feedback received during the course of the comprehensive review has been that greater clarity is needed on the aims of the FITs scheme. These aims need to be considered in the context of a number of important developments in our policy and strategy for renewables delivery since the FITs scheme started, including the Renewables Roadmap.

## Aims of the FITs scheme

15. The Renewables Roadmap set out our assessment that approximately 90% of the generation necessary to meet our binding EU renewable energy targets can be delivered from eight technologies which have either the greatest potential to help the UK meet the 2020 target in a cost effective and sustainable way, or offer great potential for decades that follow. Solar PV is not identified as one of these eight technologies, although the renewables roadmap notes that solar PV could potentially have a role to play in larger-scale renewables deployment in the future, depending on a number of factors including the level of cost reductions.
16. The analysis underpinning the Renewables Roadmap is based on a benchmark that the marginal cost (in terms of subsidy) that is currently considered necessary to deliver the UK's renewable target is 9p/kWh. In other words, our analysis shows that if we offer this level of support (or lower) to a range of technologies, the UK target will be met, without the need for subsidy at higher levels. This 9p/kWh level is broadly equivalent to two Renewables Obligation Certificates (based on 2012-13 costs). This is the level of support available under the Renewables Obligation to

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<sup>4</sup> The UK Renewable Energy Roadmap is available at [www.decc.gov.uk/en/content/cms/meeting\\_energy/renewable\\_ener/re\\_roadmap/re\\_roadmap.aspx](http://www.decc.gov.uk/en/content/cms/meeting_energy/renewable_ener/re_roadmap/re_roadmap.aspx).

offshore wind, which is currently considered to be the marginal cost effective technology required to deliver the UK's 15% renewable target.

17. Any additional support for renewable energy technologies above this benchmark therefore needs to be justified on other grounds. In the case of FITs, we consider that this justification is provided by the fact that the scheme's aims include contribution to wider low carbon goals, as well as the renewable energy target. These wider aims include:-
- empowering people and giving them a direct stake in the transition to a low-carbon economy;
  - helping develop a supply chain that offers households a wide range of cost effective measures to lower their energy use and carbon emissions; and
  - assisting in public take-up of carbon reduction measures, particularly measures to improve the energy efficiency of buildings.
18. These are broadly similar to the aims set when the FITs scheme began.<sup>5</sup> They underpinned the overall approach to setting tariffs which was based on delivering a target return of 5-8% for well located installations (5% for solar PV).<sup>6</sup> The Coalition Government believes that an approach that takes into account rates of return remains appropriate. Therefore, as foreshadowed when the FITs scheme began, one of the main areas that the comprehensive review has been considering is whether the current tariffs are delivering more than these target returns, and whether these returns themselves are appropriate in supporting delivery of these objectives.
19. To ensure value for money to consumers, it is also important that the FITs scheme remains affordable. The parameters of affordability have been set for the current spending review period by the Control Framework for DECC levy-funded spending, referred to here as the Levy Control Framework.<sup>7</sup> This covers a number of policies, including FITs, which work by placing a financial obligation onto energy companies, which is then passed onto the consumer through energy bills.
20. The purpose of the Levy Control Framework is to help ensure that the policies within its scope achieve their objectives cost effectively and affordably and without leading to an unsustainable increase in energy bills. The agreed spending envelope for FITs over the current Spending Review period (2011/12 to 2014/15) is set out in the table below (with annual allocations in nominal prices). It is important to note that the figure for each year is effectively cumulative, because it must cover the costs of paying for projects accredited in previous years of the scheme as well as new projects that year.

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<sup>5</sup> See "Feed-in Tariffs: Government's Response to the Summer 2009 Consultation" (published February 2010), available at [www.decc.gov.uk/FITS](http://www.decc.gov.uk/FITS) and the Explanatory Notes for the Energy Act 2008, available at [www.legislation.gov.uk/ukpga/2008/32/notes/division/1/3/5](http://www.legislation.gov.uk/ukpga/2008/32/notes/division/1/3/5).

<sup>6</sup> See the Impact Assessment supporting the introduction of the FITs scheme (published in February 2010) and available at <http://www.decc.gov.uk/assets/decc/Consultations/Renewable%20Electricity%20Financial%20Incentives/2710-final-ia-feed-in-tariffs-small-scale.pdf>.

<sup>7</sup> See [www.hm-treasury.gov.uk/d/control\\_framework\\_decc250311.pdf](http://www.hm-treasury.gov.uk/d/control_framework_decc250311.pdf).

21. The figure for 2014-15 in Table 2 reflects the agreement made through last year's Spending Review that savings of 10% would be found in that year.

**Table 2: Spending envelope available for FITs**

2011-12 (£m)	2012-13 (£m)	2013-14 (£m)	2014-15 (£m)
80	161	269	357

22. We will be interested in hearing views on these aims and objectives through both the current consultation and the phase 2 consultation.

### **Comprehensive Review and meeting the aims of the FITs scheme**

23. Ensuring that the FITs scheme meets the aims set out above is the principal objective of the comprehensive review. This consultation is focused solely on support under FITs for solar PV, the dominant technology of the FITs scheme in terms of uptake. Specifically, it addresses evidence that the current tariffs for solar PV are resulting in significantly higher returns than originally intended and, as a consequence, are threatening the overall affordability of the FITs scheme. It also considers how the FITs scheme could be developed to better deliver the objectives set out above, through proposals to establish the link between FITs eligibility for solar PV and energy efficiency.
24. We will publish a separate consultation in the coming months which will set out proposals for the other aspects of the comprehensive review. In particular, it will seek views on proposals to ensure that the scheme's objectives can be met in a way that is affordable into the future. A key challenge for any cost control mechanism is enabling the scheme to be run so as to be responsive to market developments. The current consultation on solar PV is in part a result of how the current structure for reviewing and degressing tariffs has not been able to track real-world developments in technology costs except through the one-off opportunity provided by the comprehensive review.
25. We have been considering different types of cost control mechanisms that could be used for FITs, and want to continue discussing these with stakeholders. We expect that the tools for managing costs for these programmes may include a range of options including:-
- *Contingent degression*, where tariffs are adjusted automatically in response to deployment or expenditure triggers. Recent legislative changes have introduced a version of this approach in the German FITs scheme and we will be observing the results of this closely;
  - *More frequent/rolling reviews*, which could provide a more flexible and rapid-response approach to cost and market changes, making appropriate use of expert industry advice;
  - *Rationing/quotas*, which would limit access to FITs to a set number of installations or a set amount of installed capacity.

26. We expect that regular degression<sup>8</sup> of tariffs will be a central feature of the FITs scheme under all of these options to reflect, and also to encourage and drive, decreases in technology and installation costs. All of these options would entail some trade-off between the cost certainty for the Government and bill payers and the long term certainty that we want to deliver for investors. Each of these tools would have advantages and disadvantages and we will need to consider combination approaches and the possibility of adopting different approaches for different technologies.

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<sup>8</sup> “degression” is where tariffs for new installations are set at a lower level than tariffs for existing installations.

## Chapter 2. Proposed tariff changes for solar photovoltaics

### Summary

- Developments in the market for solar PV have meant that the current support provided by GB FITs is resulting in returns far above those expected when the scheme started. This in turn has resulted in uptake of solar PV exceeding the projections undertaken when the scheme began.
- If this trend of rapid and unforeseen uptake of small-scale solar PV continues, it will not be possible for the FITs scheme to meet its commitments under the 2010 Spending Review to save £40 million per year in 2014/15 and the long term need for the FITs scheme to operate within the Levy Control Framework.
- Subject to the outcome of this consultation and the process of Parliamentary scrutiny as required by the Energy Act 2008, our proposal is to reduce the level of support for all new solar PV installations with a total installed capacity of 50kW or less, the size at which uptake is increasing most quickly. To ensure consistency, and in the light of new evidence from the comprehensive review, we are also proposing new tariffs for installations with a total installed capacity of between 50kW and 250kW.
- We propose that the revised tariffs for PV will take effect from 1 April 2012 but will apply to all new PV installations with an eligibility date<sup>9</sup> of on or after 12 December 2011.
- We also propose introducing new multi-site tariff rates for “aggregated” projects. These are schemes where a single individual or organisation receives FIT payments from more than one PV installation located on different sites. Subject to the outcome of this consultation and the process of Parliamentary scrutiny as required by the Energy Act 2008, the new aggregated bands will apply to all new PV installations which are part of aggregated schemes, from 1 April 2012.
- We are seeking views on all these proposals and alternative suggestions by 23 December 2011.

<sup>9</sup> See paragraphs 44 and 45 below as to the meaning of “Eligibility date”.

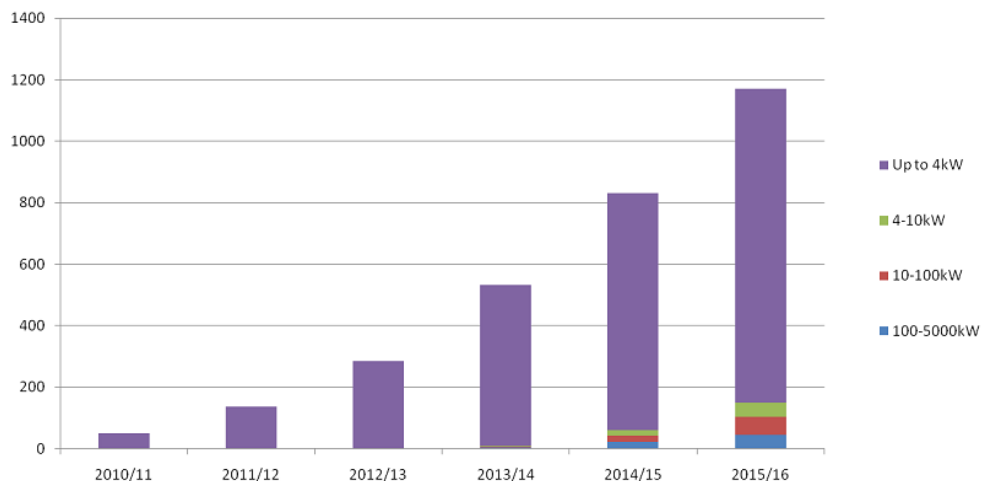
## Issue

27. On 7 February 2011, the Secretary of State announced the start of the first comprehensive review of the FITs scheme. In doing so, he confirmed that the review would assess all aspects of the scheme including tariff levels, administration and eligibility of technologies. He also said that the review would be completed by the end of the year, with tariffs remaining unchanged until April 2012, unless the review revealed a need for greater urgency.
28. Since announcing the start of the first comprehensive review of FITs, we have been monitoring uptake closely. Evidence from this has shown that the number of solar PV installations is far ahead of projections. If this trend were allowed to continue, the affordability of the whole FITs scheme would soon be under threat. In the light of this budgetary risk we consider that it is necessary to seek views now on proposals for new tariffs for solar PV.

## Background

29. The original tariffs for solar PV were set to provide an approximate 5% rate of return on capital. This was expected to provide reasonable returns to householders, communities and small businesses who were interested in generating their own electricity. The modelling undertaken prior to the start of the FITs scheme projected that there would be 137 MW of PV installed under FITs in the first two years of the scheme (shown in Figure 1 below).

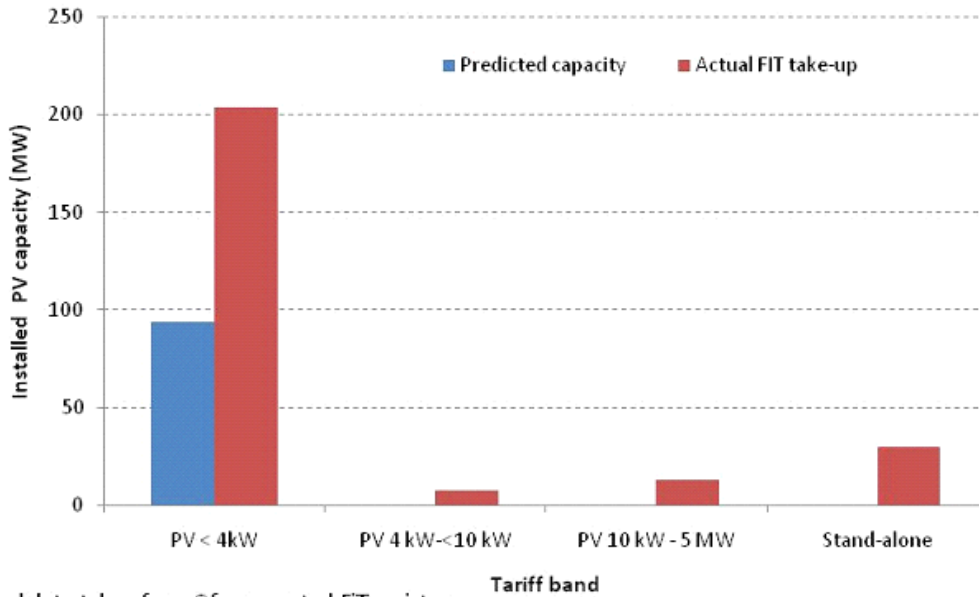
**Figure 1: Projected cumulative uptake of solar PV at start of FITs**



Note: Projected MW uptake in this graph is based on modelling that was undertaken prior to the start of the FITs scheme, and consistent with the February 2010 Government Response IA.

30. However, deployment of PV, particularly over summer 2011, has accelerated rapidly resulting in a level of uptake that is significantly above these projections (Figure 2). As at September 2011 (i.e. half way through the second year of the FITs scheme), 255MW of solar PV had been registered for FITs. This compares to the 94MW that was originally projected for this point in time, and is nearly double the projection for the first two years of the scheme.

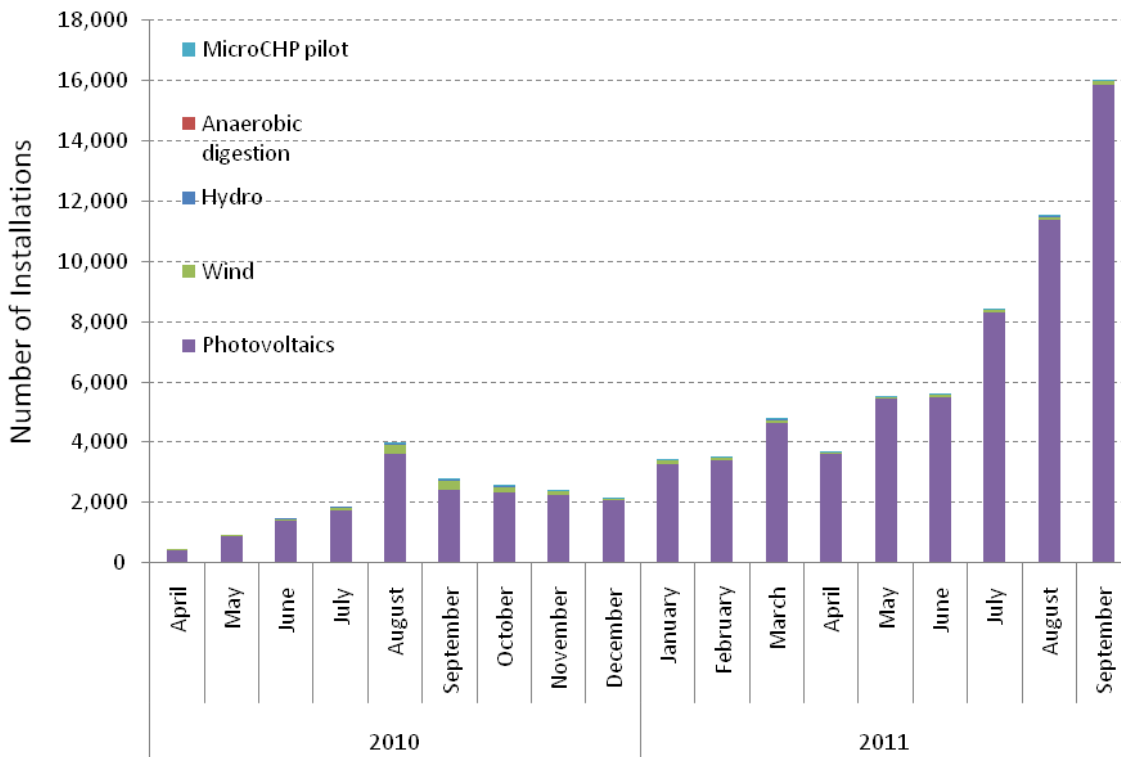
**Figure 2: Projected vs. actual uptake of PV (to 30<sup>th</sup> September 2011)**



Actual data taken from Ofgem central FIT register.  
 Projections based on modelling undertaken for the Impact Assessment published in February 2010 prior to the start of the FITs scheme

31. As illustrated in Figure 3 below, the summer months (July, August and September) of 2011 have seen the monthly rate of growth in the number of new installations registered for FITs more than double compared with June 2011.

**Figure 3: Additional installations confirmed on central FIT register each month**

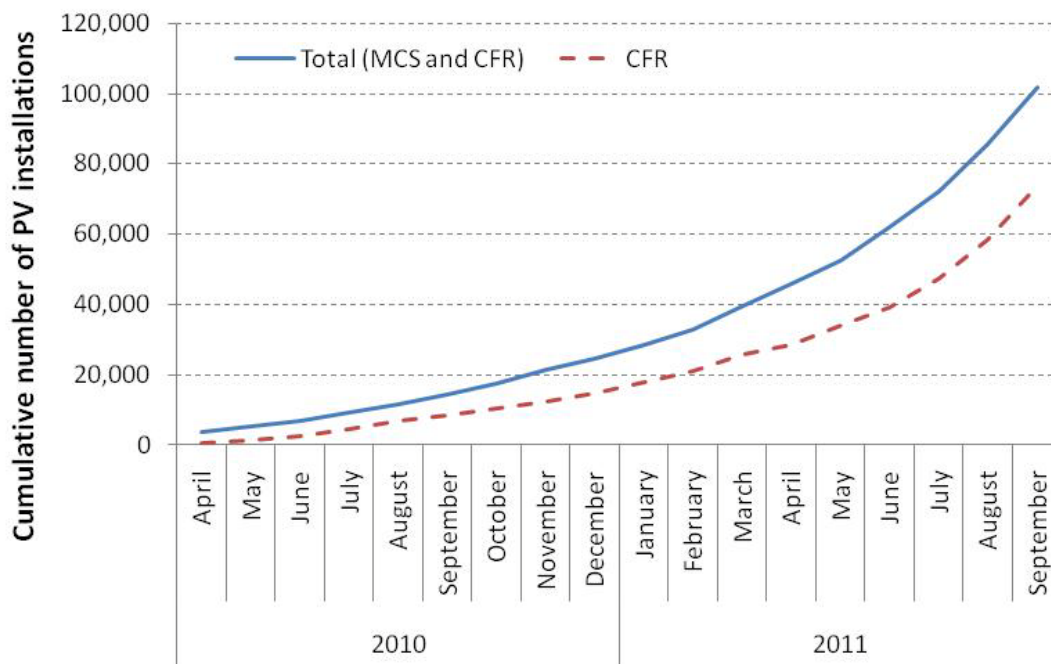


32. However, Figure 3 is based on the number of installations that are confirmed on Ofgem’s Central FIT Register. Installations are only confirmed on the FIT register at the very end of the FITs application process, i.e. once an application for FITs has been approved and a FIT supplier has been identified. This creates a time lag between when a project is installed and when it features in the official statistics on FITs uptake. Given this, we have also been monitoring the pipeline of installations.

For larger scale PV projects (those with a declared net capacity of more than 50kW), we understand from Ofgem that applications for around 250 projects (equivalent to a total capacity of around 100MW) are currently in the accreditation process.<sup>10</sup> These are projects that applied for FITs before 1 August 2011 in advance of the implementation of the new tariffs for large scale solar PV following the fast-track review of FITs.

33. For smaller PV projects, we have been monitoring data from the Microgeneration Certification Scheme (MCS) database on the number of FITs eligible technologies that have been installed. Data from the MCS database suggests that the number of solar PV installations with a declared net capacity of less than 50kW is almost 40% higher than the number currently confirmed onto the Central FIT Register (Figure 4). The indications are that, unless we act, this trend will continue and this will mean that our envelope of expenditure for 2011/12 and 2012/13 at least will be breached.

**Figure 4: Solar PV installations on the MCS and CFR databases**



34. We believe that the key factor driving the recent increase in the PV numbers has been the reduction in the cost of PV systems. As set out in the Impact Assessment, there is broad agreement across the industry and more widely that the costs of purchasing and installing solar PV have come down dramatically, falling in real terms by at least 30%. This reduction has been driven primarily by increased global demand, stimulated by policies such as FITs in a number of countries. The majority of the cost of an installation is currently the solar panels themselves and it is this aspect of the total cost which is reducing fastest. As a result, we estimate that the installed costs of a typical domestic solar PV project (size 2.6kW) are now around £9,000, having been around £13,000 at the time the scheme was launched.

35. As well as the falling costs of solar PV, the increased returns available from solar PV have also been driven by a 13% increase in retail electricity prices since April 2010, which has increased the savings from avoided consumption of imported electricity.

<sup>10</sup> Accreditation applications for these installations are being considered and it may be that not all of this capacity will realise FITs support.



We expect both these trends to continue over the coming year (and have taken this into account in setting the tariffs proposed below).

36. These developments have led to increases in the rates of return available to those installing PV and, with this, to many more people installing PV systems. We estimate that typical rates of return for individual <4kW solar PV have increased significantly since the scheme was launched, increasing from the 5% targeted at the outset of the scheme to substantially more than that today. Evidence on falling solar PV costs<sup>11</sup> also suggests that rates of return have increased for PV installations in the 4-50kW range. In addition, this new evidence and updated DECC fuel price projections<sup>12</sup>, suggests that there have been increases in the rates of return available to PV installations larger than 50kW under the new tariffs that were introduced through the recent fast-track review and came into effect from 1 August 2011. Since undertaking the fast-track review, we estimate that retail electricity prices have increased by 7%, while installation costs have continued to fall, meaning that the rate of return for installations between 50kW and 250kW has already increased above our 5% target.
37. Another significant development since the start of the FITs scheme that has contributed to the high levels of uptake has been the emergence of arrangements where a single individual or organisation owns, or receives the FITs payments from, multiple PV installations. We understand that nearly 20% of PV installations currently registered for FITs are associated with generators who have more than one PV installation registered for FITs. Multi-installation schemes that have emerged since the FITs scheme started include situations where a single organisation or individual owns multiple properties on which they then install solar PV as well as so-called “rent a roof” arrangements. While the model for such arrangements can vary, the basic premise is that a third party owns generating equipment which is then hosted by a number of houses or other buildings. The hosts benefit from the electricity generated by the PV panels (and associated energy bill savings) and potentially a rent payment while the third party benefits from the FITs income.
38. We recognise the role that multiple installation schemes have played in the uptake of FITs to date, and in enabling those who cannot afford the upfront capital costs of purchasing a PV installation, including the fuel poor, to share in some of the benefits of FITs. Some respondents to the call for evidence that we ran earlier this year highlighted these benefits. However, others raised concerns about the fairness of such aggregated schemes, noting that the principal beneficiaries are generally the third parties rather than the hosts of the generating equipment.
39. The FITs review has provided an opportunity to consider the economies of scale available from such deployment models. These were not accounted for when the original tariffs were calculated and our analysis suggests that, because of this, the returns available to such schemes are higher than in the case of individual installations. We therefore consider there is a strong case for adopting a different approach and tariff for multi-site generators i.e. where a single company or individual

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<sup>11</sup> Cambridge Economic Policy Associates (CEPA)/Parsons Brinkerhoff (PB), ‘Updates to the Feed in Tariffs model: Documentation of changes for solar PV consultation’, October 2011.

<sup>12</sup> Available at [http://www.decc.gov.uk/en/content/cms/about/ec\\_social\\_res/analytic\\_projs/en\\_emis\\_projs/en\\_emis\\_projs.aspx](http://www.decc.gov.uk/en/content/cms/about/ec_social_res/analytic_projs/en_emis_projs/en_emis_projs.aspx).

receives FITs from PV installations on more than one site, to ensure that the target rate of return is not significantly exceeded.

## Proposal

### Tariff reductions

40. In order to address the budgetary risk and the risk of overcompensation, we propose introducing new tariffs for all new solar PV installations with a total installed capacity of less than 250kW. The principal focus of these proposed tariffs is on addressing the significant risk of overcompensation posed by the current tariffs for PV installations with a total installed capacity of 50kW or less. However, in the light of new evidence from the comprehensive review on costs, we consider that it is also necessary to adjust the tariffs for PV installations with a total installed capacity of between 50kW and 250kW to ensure that these also reflect the most up to date information on costs and to avoid inconsistencies. The proposed new tariffs are set out in Table 3 below:-

**Table 3: Current and proposed generation tariffs for solar PV**

<b>Band (kW)</b>	<b>Current generation tariff (p/kWh)</b>	<b>Proposed generation tariff (p/kWh)</b>
4kW or less (new build)	37.8	21.0
4kW or less (retrofit)	43.3	21.0
>4-10kW	37.8	16.8
>10-50kW	32.9	15.2
>50-100kW	19	12.9
>100-150kW	19	12.9
>150-250kW	15	12.9
>250kW-5MW	8.5	8.5*
stand alone	8.5	8.5*

\* Note that these are the current tariffs which we are not proposing changing and which, like all other current tariffs, will be adjusted in line with the Retail Price Index from 1 April 2012.

41. The proposed new tariffs have been set in the light of evidence of the falling costs of PV and are intended to provide a 5% rate of return for well located installations. This was the target return for PV under FITs when the scheme started.<sup>13</sup> The one exception is the tariff for PV installations with a total installed capacity of 4kW or less, the size of installation that is most commonly used for domestic PV

<sup>13</sup> The Impact Assessment supporting the introduction of the FITs scheme (published in February 2010) stated that, "PV tariff levels provide an approx 5% ROI given that PV is easier to deploy than other technologies and carries less risk to the investor since it is a tried and tested technology. In setting a 5% ROI for PV, the relatively high generation cost of PV (measured through a £/MWh cost-effectiveness metric) and the potential impact of this on overall scheme costs and hence energy bills has also been taken into account."

installations. The proposed tariff for this band is intended to deliver a 4.5% rather than 5% rate of return for a well located domestic PV installation.

42. Based on analysis undertaken through the comprehensive review, we consider that a lower target return than 5% is more appropriate for domestic PV given how the investment climate has changed since the FITs scheme was first introduced. The alternative investment opportunities currently available to individuals, such as savings and bonds, will typically provide lower rates of return now than in 2009/10 when the FITs scheme was originally designed. The ongoing level of FITs tariffs, together with the target rate of return and whether this remains appropriate, will be considered as part of phase 2 of the comprehensive review and kept under review in future. The consultation on phase 2 will also consider in more detail whether more could be done to enable genuine community projects to achieve real benefits from FITs.
43. The proposed new tariffs are also based on an assumption that 50% of the electricity generated by any PV installation other than a stand-alone installation will be consumed on-site and the remainder exported to the grid. This assumption is the same as that used when the original tariffs for PV were set. However, through phase 2 of the comprehensive review we want to explore further whether this approach remains appropriate, particularly for PV installations on non-domestic buildings where a higher proportion of electricity generated may be consumed on site (with associated benefits in terms of electricity bill savings).
44. Because of the urgency of the budgetary concerns, and the aim of ensuring that the FITs scheme continues to be available to households and others, we are proposing that, subject to the outcome of the consultation and the Parliamentary scrutiny required by the Energy Act 2008, **the new tariffs will come into force from 1 April 2012 but will apply from that date to all new PV installations with an eligibility date of on or after 12 December 2011 (the ‘reference date’). Existing generators with an eligibility date before the reference date will not be affected by the proposed change in tariffs.**
45. The effect of this is that, depending on the result of the consultation, installations with an eligibility date that falls between the reference date and 31 March 2012 will receive the current tariff for that period only, and will then move to the new tariff from 1 April 2012. Those installations with an eligibility date on or after 1 April 2012 will start immediately on the new tariff.
46. The term “eligibility date” has a specific legal meaning for the purposes of FITs. It is important to note that, particularly for domestic FIT installations, the eligibility date is likely to be after the installation date. The definition is set out in Condition 33 of the Standard Conditions of Electricity Supply Licences, application of which is the responsibility of licensed electricity suppliers and Ofgem, who are responsible for administering the FITs scheme.
47. The effect of the proposal is that in order to be eligible for existing tariffs a PV installation with a total installed capacity of up to 250kW must be **commissioned**<sup>14</sup>

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<sup>14</sup> An installation is “commissioned” upon the completion of such procedures and tests as constitute, at the time they are undertaken, the usual industry standards and practices for commissioning that type of installation in order to demonstrate it is capable of operation.

**and have its request for accreditation received** by a FIT Licensee (in the case of PV installations with a declared net capacity of 50kW or less) or Ofgem (in the case of PV installations with a declared net capacity of more than 50kW) **before 12 December 2011**. In the case of PV installations with a declared net capacity of 50kW or less, the request for accreditation must include a Microgeneration Certification Scheme (MCS) certificate.

48. The proposed reference date of 12 December 2011 is 6 weeks after the publication date of this consultation. This is consistent with the Government's commitment that tariff changes will not be made retrospectively for installations already accredited to receive FITs. It will also allow many prospective generators, particularly householders, who have made a financial commitment to installing PV (for example, paying a deposit) to complete their installations and receive the current tariffs.

49. We recognise, though, that some prospective FITs generators who have incurred or committed expenditure before this consultation is published may not be able to complete their installations and submit their applications for FITs before 12 December 2011. If generators in this position decide to proceed with their installation and the tariff changes are implemented as proposed, they will automatically receive a lower tariff from 1 April 2012. In forming the proposal we have taken into account the possibility of hardship to persons in this situation, but we think the proposed approach is reasonable given:-

- The urgency of the concerns about the impact on the scheme's budget of continuing high levels of uptake at the current tariffs, including any rush of new installations triggered by this consultation;
- The impact will only be on prospective FIT generators who will have 6 weeks notice from the date of consultation; and
- The reduced tariffs are still expected to provide a rate of return of 5% in most cases for well sited installations and 4.5% in the case of the tariffs for <4kW solar PV installations. The FITs scheme was never intended to provide windfall profits and in the current climate we regard these returns as reasonable.

50. However, we will consider representations made during the consultation both as to (i) the principle of applying the lower tariff to new installations installed from a reference date (12 December 2011) that comes before the legal implementation of those tariffs (1 April 2012); and (ii) whether the proposed reference date should be 12 December 2011 or some other date.

#### New multi-installation tariff rates for aggregated solar PV projects

51. We also propose introducing a new "multi-installation" tariff rate associated with each solar PV tariff band that would apply to any solar PV installation where the FIT generator or nominated recipient already owns or receives FITs payments from one or more other PV installations, located on different sites. Specifically, we propose that the multi-installation rate would apply:-

- (i) if the FIT generator (whether or not the person in receipt of FIT payments) is either the FIT generator or the nominated recipient for FIT payments for any other solar PV installation; and

- (ii) if the nominated recipient for FIT payments (where there is one) is either the FIT generator or the nominated recipient for FIT payments for any other installation.

52. We propose that the multi-installation tariff rate would apply to all new solar PV installations meeting this definition with an eligibility date on or after 1 April 2012.
53. The multi-installation tariff rates that we are proposing are set out in the table below. These are based on evidence from the comprehensive review which suggested that the economies of scale associated with aggregated projects mean that a lower tariff is necessary to deliver the target rate of return of 5%. We have considered this evidence along with the possible impact of the proposed new requirements on energy efficiency (see section 3) on aggregated projects. On this basis, we consider that a multi-installation rate which is set at 80% of the proposed standard tariffs for individual installations, is justified (where that would result in a tariff that is no lower than the marginal cost of renewables described in section 1 above).
54. We would welcome views on the principle of a multi-installation tariff rate; the proposed approach to defining the installations that this tariff rate would apply to; and the proposed multi-installation tariff rates set out in Table 4 below.

**Table 4: Proposed multi-installation generation tariffs for solar PV**

<b>Solar PV tariff band</b>	<b>Multi-installation generation tariff (p/kWh)</b>
4kW or less (new build)	16.8
4kW or less (retrofit)	16.8
>4-10kW	13.4
>10-50kW	12.2
>50-100kW	10.3
>100-150kW	10.3
>150-250kW	10.3
>250kW-5MW	8.5*
stand alone	8.5*

\* Note that these are the current tariffs which, like all other current tariffs, will be adjusted in line with the Retail Price Index from 1 April 2012.

**Questions**

- |          |  |
|----------|--|
| <b>1</b> | Do you agree or disagree with the proposed new tariffs for solar PV? Give reasons to support your answer.  |
| <b>2</b> | Do you agree or disagree with the proposal of applying the new tariffs to all new solar PV installations with an eligibility date that is on or after a reference date that comes before the legal implementation of those tariffs? Give reasons to support your answer. |
| <b>3</b> | Do you agree or disagree with the proposed reference date of 12 December 2011? Give reasons to support your answer.  |
| <b>4</b> | Do you agree or disagree with the proposal to introduce new multi-installation tariff rates for all new solar PV installations that meet the definition set out above and have an eligibility date of on or after 1 April 2012? Give reasons to support your answer      |
| <b>5</b> | Do you agree or disagree with the proposed multi-installation tariff rates? Give reasons to support your answer.   |

## Chapter 3. Proposal to strengthen the link between energy efficiency and FITs

### Summary

- We want to ensure that solar PV is considered as part of a holistic approach to carbon reductions in buildings that prioritises energy efficiency.
- Subject to the outcome of this consultation and Parliamentary procedures, our proposal is that all new solar PV installations attached to or wired to provide electricity to a building, with an eligibility date on or after 1 April 2012, will only be eligible for the proposed tariffs set out in Chapter 2 (“the standard tariffs”), if the FIT generator can demonstrate that the building to which the installation is attached meets a certain level of energy efficiency. If the FIT generator is not able to demonstrate this, then the installation will be eligible for a lower tariff of 9p/kWh.
- For that energy efficiency requirement, we are seeking views on whether the owner or occupier of a building should have to:
  - bring the property up to an energy performance certificate (EPC) rating of level C or above; or
  - undertake all the measures that are identified on an EPC as potentially eligible for Green Deal finance.
- Either option would apply to any solar PV installation attached to or wired to provide electricity to a building with an eligibility date on or after 1 April 2012.
- As a transitional arrangement, installations with an eligibility date between 1 April 2012 and 31 March 2013 would have 12 months from the eligibility date to install any energy efficiency measures that are necessary to comply with the energy efficiency requirement. During this period, installations would receive the applicable standard tariff rate. If, at the end of the 12 month period, the relevant energy efficiency measures had not been installed, the tariff would automatically be reduced to the lower tariff of 9p/kWh for the remainder of the eligibility period.
- We are seeking views on these proposals and alternative suggestions by 23 December 2011.

## Issue

55. It was particularly important when it was launched that the FITs scheme should be as clear and streamlined as possible. Specific energy efficiency measures or standards have therefore not so far been a pre-requisite for the payment of FITs, nor have higher tariffs been provided to those who had taken energy efficiency measures. However, when the scheme started it was made clear that this was an issue that it could be appropriate to revisit at the first scheme review.<sup>15</sup>
56. The Coalition believes that there are strong arguments for revisiting this question as part of the current review and for strengthening the role of FITs as a vehicle to help drive energy efficiency improvements. Our view is that energy efficiency should always be the first step for those considering how to improve the energy performance of their buildings, particularly as energy efficiency measures, in terms of cost per tonne of carbon dioxide emissions saved, are a more cost effective way of cutting carbon than on-site electricity generation.
57. We therefore now consider that it would be appropriate to make eligibility for the proposed new tariffs for solar PV set out in Section 2 above, conditional on a building meeting a specified minimum energy efficiency requirement. This will promote a holistic approach to buildings that prioritises energy efficiency, for those considering installing solar PV.

## Background

58. Reducing demand for energy is one of the most cost-effective ways of reducing carbon emissions. That is why the Green Deal, which will be launched in autumn 2012, is being introduced.<sup>16</sup> It will help reduce energy demand and carbon dioxide emissions by providing the opportunity for people to install energy efficiency measures and improvements at no up-front cost. Alongside the significant business and employment opportunities generated, the Green Deal will mean homes are easier to heat and consumers will be able to save money on their energy bills. Green Deal finance will allow households and businesses to make energy efficiency improvements to their properties at no up-front cost, with bill-payers repaying the associated charge through their energy bills.
59. Under the Green Deal, consumers will be offered an impartial assessment of the energy performance of their property, identifying the best opportunities for energy efficiency improvements. The Green Deal framework will require all assessors and installers to be accredited and authorised, providing the quality assurance needed to support consumer confidence.
60. The Energy Company Obligation (ECO), designed to meet carbon reduction targets through energy efficiency measures, will run in parallel with and underpin the Green Deal. The obligation will focus particularly on the poorest and most vulnerable households; and also on domestic properties where energy efficiency improvements

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<sup>15</sup> See *Feed-in Tariffs: Government's response to the summer 2009 consultation* (published February 2010).

<sup>16</sup> The Government will shortly be publishing a consultation on implementation of the Green Deal and the ECO, which will contain further details about these policies.



cannot be installed under the Green Deal at no upfront cost without a measure of support – in particular, properties with solid walls.

## Proposal

61. We are seeking views on proposals that all new solar PV installations attached to or wired to provide electricity to a building, with an eligibility date on or after 1 April 2012, will only be eligible for the proposed tariffs set out in section 2 above (“the standard tariffs”), if the FIT generator can demonstrate that the building to which the installation is attached meets a certain level of energy efficiency. We have divided the description of the proposals into two sections, the first dealing with domestic energy efficiency and the second dealing with non-domestic energy efficiency. This is in order to seek views on whether there are different issues associated with this proposal for different kinds of building.
62. We have focused much of the detail on what the proposal would look like for solar PV installations attached to or wired to provide electricity to dwellings, bearing in mind that the vast majority of current solar PV installations registered for FITs are domestic installations. By providing this detail we hope that stakeholders should be better able to understand and consider the proposal.

### Domestic energy efficiency

63. We are proposing that (subject to the transitional provision described below) all new solar PV installations attached to or wired to provide electricity to a dwelling, with an eligibility date on or after 1 April 2012, will only be eligible for the proposed tariffs set out in section 2 above (“the standard tariffs”), if the FIT generator can demonstrate when applying for FITs accreditation that the dwelling to which the installation is attached meets a certain level of energy efficiency. If the FIT generator is not able to demonstrate this, then the installation will be eligible for a lower tariff of 9p/kWh for the whole of the tariff lifetime.<sup>17</sup> Any subsequent energy efficiency improvements would not make a generator eligible for the “standard tariffs”. This is because, as set out above, the principal objective of the energy efficiency requirement is to ensure that energy efficiency measures are prioritised as the first step to improving a building’s energy performance.
64. To demonstrate that a certain level of energy efficiency had been achieved, the FIT generator would need to have a valid Energy Performance Certificate (EPC) for the property and submit this to their FIT supplier.
65. We are also proposing that, as a transitional provision, generators with PV installations with an eligibility date between 1 April 2012 and 31 March 2013 will have 12 months from the eligibility date to install the necessary energy efficiency measures. During this period, installations would receive the applicable standard tariff, but unless the FIT generator demonstrated within 12 months that the measures had been installed, the tariff would automatically be reduced to the lower tariff of 9p/kWh.

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<sup>17</sup> 9p/kWh is broadly equivalent to the level of support allocated to what is currently considered to be the marginal cost effective technology required to deliver the UK’s 15% renewable target, offshore wind (based on 2012/13 costs). It is comparable with the current tariff for all stand-alone and >250kW solar PV projects, noting that these, like all other current tariffs, will be adjusted in line with the Retail Price Index from 1 April 2012.

66. It is important to strike the right balance between prioritising energy efficiency as part of a holistic approach to buildings, and ensuring that the energy efficiency requirements are appropriate. Our two lead options for what the new energy efficiency requirement would be are discussed below and we would welcome views on these and any alternatives.

### EPC Level C

67. The first option that we are considering would require the dwelling to be brought up to a minimum EPC energy efficiency rating, which we propose should be level C or above. This option should be straightforward to administer and simple for consumers to understand, and also for the industry to promote. Setting the requirement at EPC level C or above would mean that action on energy efficiency would be required for most dwellings (86%) before they would be eligible for the standard tariff. This would mean that in the vast majority of cases, eligibility for the standard tariff would first require action on energy efficiency, maximising the wider benefits of FITs and ensuring that the aims for FITs set out above are realised. Setting the requirement at EPC level D would mean that fewer than half of all households would have to make further energy efficiency improvements to qualify for the standard tariff.

68. It should be noted that the installation of solar PV is itself a measure which improves the energy efficiency rating of a building, and which could therefore contribute towards achieving the requirement. The proposal is that a dwelling should attain EPC level C or above, taking account of the installation of the solar PV for which an application for FITs is made.

## Energy Performance Certificates

- Energy Performance Certificates (EPCs) give information on how to make a building more energy efficient and reduce carbon dioxide emissions. An EPC is already required for all buildings, subject to limited exceptions, on construction, sale or rent.
- EPCs carry ratings that compare the current energy efficiency and carbon dioxide emissions with potential figures that the building could achieve. Potential figures are calculated by estimating what the energy efficiency and carbon dioxide emissions would be if energy saving measures were put in place.
- The rating measures the energy and carbon emission efficiency of the building using a grade from 'A' to 'G'. An 'A' rating is the most efficient, while 'G' is the least efficient. The average efficiency grade for an existing dwelling in England and Wales is 'D'. There are two methodologies in use for measuring the energy efficiency of domestic and non-domestic buildings respectively. All buildings of the same type are measured using the same methodology, so the energy efficiency of different properties can be compared.
- EPCs also recommend measures to improve the energy performance of a building, with indicative costs.
- A redesigned EPC is being introduced from 1 April 2012, which will additionally include information about the Green Deal and which recommended measures are likely to be eligible for Green Deal finance.
- Currently, obtaining an EPC for a dwelling costs around £50. The cost can be higher for non-domestic buildings, ranging from £100 to £1000.
- Further information about EPCs is available at <http://www.direct.gov.uk/en/HomeAndCommunity/BuyingAndSellingYourHome/Energyperformancecertificates/index.htm>.

69. For dwellings that do not already meet the required standard, reaching level C may require the installation of some or all of the following measures: loft insulation, cavity wall insulation, heating controls, hot water cylinder insulation, replacement boiler and solid wall insulation (primarily for pre-1919 houses). In most cases, we estimate that the total cost of installing these measures could be up to £5,600, depending on the base-level energy performance of the building (costs would be higher in some cases, for example properties with solid walls) For example, illustrative costs to reach level C are:

- £2,500 for a detached house currently rated as D that already has loft insulation and insulated cavity walls, but where the boiler needs to be replaced with a condensing boiler;
- £3,600 for a detached house with cavity walls currently rated as F where loft insulation, cavity wall insulation and a replacement boiler would be needed;

- £14,000 for a semi-detached house with solid walls currently rated as D where solid wall insulation and double glazing would be needed.

70. During the period April to December 2012, some financial support from the Carbon Emissions Reduction Target (CERT) scheme may be available to cover a proportion of the installation cost for the more basic measures, with the householder paying the rest upfront.<sup>18</sup> We consider that the prospect of receiving FITs may help make the other upfront costs more palatable to householders than might otherwise be the case.

71. From autumn 2012, the measures would be largely financeable through the Green Deal, apart from solid wall insulation, which would require a combination of Green Deal and some other form of funding, probably subsidy from the new Energy Company Obligation (ECO). While this cannot be guaranteed in any particular instance, we expect it to be widely available.

#### Link to measures identified as financeable under the Green Deal

72. The second option that we are considering is to make the energy efficiency requirement relative rather than absolute, by basing it on measures that are identified in an EPC as potentially eligible for Green Deal finance, without requiring additional upfront contributions.<sup>19</sup> Eligibility of an installation for the standard tariffs could be made conditional on the carrying out of all such measures or, going further, also any measures eligible for Green Deal Finance (and other forms of support such as ECO subsidy), even where this does not fully cover the upfront costs. This approach should also help drive demand for solid wall insulation.

73. This option would be more complex to administer than the first but it could have some important advantages over an absolute energy efficiency requirement. It would provide a more bespoke set of measures to guide the minimum energy efficiency requirements that each dwelling must meet in order for a PV installation attached to that dwelling to qualify for the standard tariffs. Unlike an absolute requirement (like the EPC level C option set out above) a relative requirement could help maximise the number of properties that have to make energy efficiency improvements in order to be eligible for the standard tariff (bearing in mind that there could be properties that are already rated as level C but which could still cost-effectively make further energy efficiency improvements). Equally, it could provide a greater incentive to the implementation of energy efficiency improvements to those properties for which reaching level C would be very expensive and not cost-effective.

74. The measures that could be financeable under the Green Deal will be identified on EPCs before the Green Deal is in place. Therefore, even in the absence of the Green Deal they provide a means of identifying possible, cost-effective ways of

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<sup>18</sup> The Carbon Emissions Reduction Target (CERT) came into effect in April 2008, obliging electricity and gas suppliers in Great Britain to help reduce carbon dioxide (CO<sub>2</sub>) emissions from homes. Suppliers meet their targets by promoting the uptake of measures that improve energy efficiency, for example by providing grants and offers to help households pay for loft and wall insulation.

<sup>19</sup> A draft list of the measures financeable under the Green Deal is available at [http://www.decc.gov.uk/assets/decc/what%20we%20do/supporting%20consumers/green\\_deal/1734-what-measures-does-the-green-deal-cover.pdf](http://www.decc.gov.uk/assets/decc/what%20we%20do/supporting%20consumers/green_deal/1734-what-measures-does-the-green-deal-cover.pdf). The Government will shortly be publishing a consultation on the Green Deal which will provide further detail.

improving the energy performance of buildings. However, under both this option and the EPC level C option, the existence of the Green Deal will add another dimension to decisions by prospective FIT generators because it will enable energy efficiency measures to be undertaken at no upfront cost.

### Non-domestic buildings

75. We consider that the principle of making eligibility for the standard tariffs for solar PV contingent on energy efficiency improvements being made to the building to which the PV installation is attached, applies equally to all types of buildings. Therefore, we are also proposing that the approach set out in paragraphs 59 to 72 above should also be applied to solar PV attached to or wired to provide electricity to buildings other than dwellings (“non-domestic buildings”) from 1 April 2012.
76. We recognise though that energy efficiency measures can be more complex and varied for non-domestic buildings. For example, the most appropriate vehicle for assessing whether all measures potentially eligible for Green Deal finance have been installed, may be different for non-domestic buildings compared to domestic. Additionally, there may be a different set of costs associated with both obtaining an EPC and installing energy efficiency measures. We want to explore these potential issues further through the consultation.

### **Implementation**

77. An energy efficiency requirement would be a new eligibility criterion for the standard tariffs under the FITs scheme and therefore consideration is also needed of how to monitor and enforce compliance. Under both the options set out above, the FIT generator would be required to submit a valid EPC to their FIT licensee (or to Ofgem, for installations with a declared net capacity greater than 50kW) as evidence that the relevant requirement had been met (either showing that the property was now rated at level C or above, or that the measures identified in a previous EPC as financeable under the Green Deal had been installed). We are proposing that it would be the responsibility of the FIT licensee or Ofgem (as applicable) to check the EPC against the central register of EPCs.
78. We will work with suppliers, Ofgem and others over the consultation period on the detail of administering this proposal, and with the Scottish Executive to address any differences between the arrangements in place in England and Wales and those in Scotland, e.g. for obtaining access to information on a register of EPCs.
79. These changes will be implemented by making necessary changes to the FITs Order and the standard licence conditions.

### **Other technologies**

80. The vast majority of FITs eligible installations attached to buildings are solar PV. We would, however, welcome views on whether it would be appropriate to introduce similar eligibility requirements for other FITs eligible technologies attached to or wired to provide electricity to buildings.

Questions	
<b>6</b>	Do you agree or disagree with the proposal that for solar PV attached to a building, eligibility for the standard tariffs proposed in chapter 2 should be contingent on a minimum energy efficiency requirement being met? Do you have views on whether such a requirement should apply in relation to all buildings or just to dwellings or non-domestic buildings? Give reasons to support your answer.
<b>7</b>	Which of our two lead options for the energy efficiency requirement – requiring a building to achieve a specified EPC rating, or requiring the installation of all measures that are identified on an EPC as potentially financeable under the Green Deal - do you prefer for (1) dwellings, and (2) non-domestic buildings? Give reasons to support your answer.
<b>8</b>	Under the first option for the energy efficiency requirement, do you agree or disagree with the proposal that the EPC rating required to be achieved should be level C or above? Give reasons to support your answer.
<b>9</b>	Do you agree or disagree with the proposal that, for a transitional period only, all solar PV installations attached to a building should initially qualify for the standard tariff, and their continued eligibility for that tariff should be conditional on the building to which the PV installation is attached achieving the energy efficiency requirement within a specified period? Give reasons to support your answer.
<b>10</b>	Do you agree or disagree that this transitional arrangement should apply to installations with an eligibility date on or before 31 March 2013, and that the specified period should be 12 months from the installation's eligibility date? Give reasons to support your answer.
<b>11</b>	Can you identify any other issues, besides those discussed in this chapter, in relation to the implementation of an energy efficiency requirement for (1) dwellings, and (2) non-domestic buildings?

# Annex A – List of Questions

Questions	
1	Do you agree or disagree with the proposed new tariffs for solar PV? Give reasons to support your answer.
2	Do you agree or disagree with the proposal of applying the new tariffs to all new solar PV installations with an eligibility date that is on or after a reference date that comes before the legal implementation of those tariffs? Give reasons to support your answer.
3	Do you agree or disagree with the proposed reference date of 12 December 2011? Give reasons to support your answer.
4	Do you agree or disagree with the proposal to introduce new multi-installation tariff rates for all new solar PV installations that meet the definition set out above and have an eligibility date of on or after 1 April 2012? Give reasons to support your answer.
5	Do you agree or disagree with the proposed multi-installation tariff rates? Give reasons to support your answer.
6	Do you agree or disagree with the proposal that for solar PV attached to a building, eligibility for the standard tariffs proposed in chapter 2 should be contingent on a minimum energy efficiency requirement being met? Do you have views on whether such a requirement should apply in relation to all buildings or just to dwellings or non-domestic buildings? Give reasons to support your answer.
7	Which of our two lead options for the energy efficiency requirement – requiring a building to achieve a specified EPC rating, or requiring the installation of all measures that are identified on an EPC as potentially financeable under the Green Deal - do you prefer for (1) dwellings, and (2) non-domestic buildings? Give reasons to support your answer.
8	Under the first option for the energy efficiency requirement, do you agree or disagree with the proposal that the EPC rating required to be achieved should be level C or above? Give reasons to support your answer.
9	Do you agree or disagree with the proposal that, for a transitional period only, all solar PV installations attached to a building should initially qualify for the standard tariff, and their continued eligibility for that tariff should be conditional on the building to which the PV installation is attached achieving the energy efficiency requirement within a specified period? Give reasons to support your answer.
10	Do you agree or disagree that this transitional arrangement should apply to installations with an eligibility date on or before 31 March 2013, and that the specified period should be 12 months from the installation's eligibility date? Give reasons to support your answer.
11	Can you identify any other issues, besides those discussed in this chapter, in relation to the implementation of an energy efficiency requirement for (1) dwellings, and (2) non-domestic buildings?

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